

# Flare-In Access Hardware

Flare-mounted captive screw assembly



## Features and Benefits

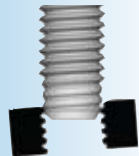
- ▶ Installs into any panel hardness.
- ▶ Appropriate for close centerline-to-edge applications.
- ▶ Can be installed on painted surfaces.
- ▶ Doesn't require high installation force.
- ▶ MATHread® anti cross-threading screw technology speeds assembly and eliminates failures.
- ▶ Reduced bearing stress against panel.
- ▶ Installs flush on back side of panel.
- ▶ Type PF11MW meets "operator access area" requirements similar to UL 508.
- ▶ Type PF12MW meets "service access area" requirements similar to UL 1950.
- ▶ Available with DuraBlack™ finish.
- ▶ RoHS compliant.

## Anti Cross-thread Technology – How It Works



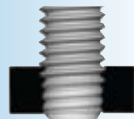
### THREADS CAM:

As the threads come into contact, the patented anti cross-thread begins to cam over the female thread.



### MISALIGNED AXIS:

This design offers users the benefits of self-aligning, anti cross-threading threads.



### THREADS DRIVE NORMALLY:

The design promotes alignment of the two thread helixes. The fasteners drive easily with reduced effort.

MATHread® is a registered trademark of MATHread Inc.



PEM dimple trademark on screw end.



PF11MF

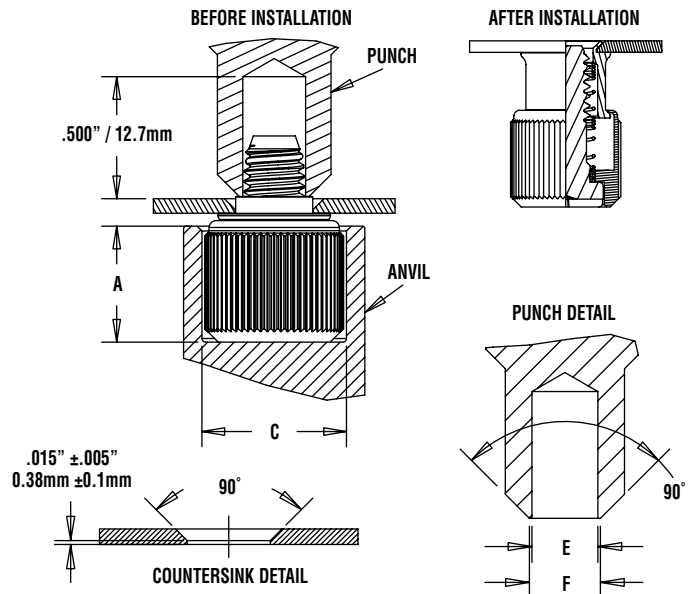
"Shoulder on retainer" feature can only be found on genuine PEM® brand panel fasteners.



PF12MF

## Flare Installation

1. Punch or drill hole with countersink as shown in the drawing below.
2. Place fastener into recessed anvil, and place workpiece over the shank of the fastener.
3. With the punch and anvil surfaces parallel, apply squeezing force to flare retainer of fastener.



## Anvil Dimensions

Thread Code	A ±.002/±0.05 (in.) / (mm)	C ±.002/±0.05 (in.) / (mm)	E +.003 - .000/+0.08 (in.) / (mm)	F ±.002/±0.05 (in.) / (mm)	Punch Part No.	Anvil Part No.
440 / M3	.260 / 6.6	.437 / 11.1	.123 / 3.12	.133 / 3.38	8013670	8003521
632	.390 / 9.91	.468 / 11.89	.143 / 3.63	.156 / 3.96	8013671	8003522
832 / M4	.390 / 9.91	.531 / 13.49	.202 / 5.13	.210 / 5.33	8013672	8003523
032 / M5	.390 / 9.91	.531 / 13.49	.202 / 5.13	.210 / 5.33	8013672	8003523
0420 / M6	.480 / 12.19	.598 / 15.19	.255 / 6.48	.264 / 6.71	8013674	8004351

## Material & Finish Specifications

### Material:

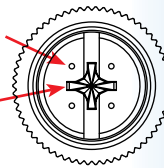
Knob: Aluminum  
 Retainer: Aluminum  
 Screw: Heat-treated Carbon Steel  
 Spring: 300 Series Stainless Steel

### Finish:

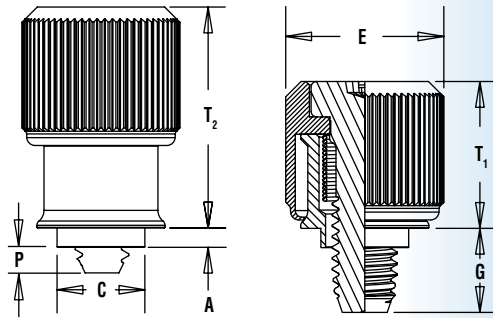
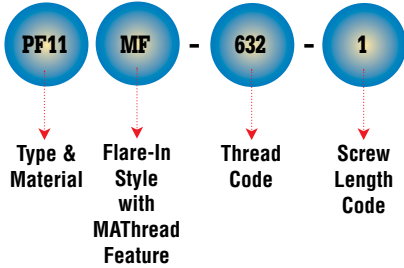
Knob: Natural Finish (standard),  
 Black anodize (optional)  
 Retainer: Natural Finish  
 Screw: Zinc plated, 5µm, colorless  
 (standard), Black nitride (optional)

Four dimples on head designate metric thread.

Driver size.



## Part Number Designation



All dimensions are in inches.

UNIFIED	Thread Size	Type		Thread Code	Screw Length Code	A Max.	Min. Sheet Thickness	Hole Size In Sheet + .005 - .000	C Max.	E ± .010	G ± .025	P ± .025	T <sub>1</sub> Nom.	T <sub>2</sub> Nom.	Driver Size
		Knurled Cap	Smooth Cap												
	.112-40 (#4-40)	PF11MF	PF12MF	440	0	.041	.031	.187	.186	.417	.200	.000	.310	.470	#1
					1						.260	.055			
					2						.320	.115			
	.138-32 (#6-32)	PF11MF	PF12MF	632	0	.072	.060	.213	.212	.450	.230	.000	.450	.640	#2
					1						.290	.024			
					2						.350	.084			
	.164-32 (#8-32)	PF11MF	PF12MF	832	0	.072	.060	.266	.265	.514	.230	.000	.450	.640	#2
					1						.290	.024			
					2						.350	.084			
.190-32 (#10-32)	PF11MF	PF12MF	032	0	.072	.060	.266	.265	.514	.230	.000	.450	.640	#2	
				1						.290	.024				
				2						.350	.084				
.250-20 (1/4-20)	PF11MF	PF12MF	0420	0	.072	.060	.323	.322	.575	.290	.000	.530	.800	#3	
				1						.350	.024				
				2						.410	.084				

All dimensions are in millimeters.

METRIC	Thread Size x Pitch	Type		Thread Code	Screw Length Code	A Max.	Min. Sheet Thickness	Hole Size In Sheet + 0.1	C Max.	E ± 0.25	G ± 0.64	P ± 0.64	T <sub>1</sub> Nom.	T <sub>2</sub> Nom.	Driver Size
		Knurled Cap	Smooth Cap												
	M3 x 0.5	PF11MF	PF12MF	M3	0	1.05	0.79	4.75	4.73	10.59	5.08	0	7.87	11.94	#1
					1						6.6	1.4			
					2						8.13	2.92			
	M4 x 0.7	PF11MF	PF12MF	M4	0	1.83	1.52	6.76	6.74	13.06	5.84	0	11.43	16.26	#2
					1						7.37	0.61			
					2						8.89	2.13			
	M5 x 0.8	PF11MF	PF12MF	M5	0	1.83	1.52	6.76	6.74	13.06	5.84	0	11.43	16.26	#2
					1						7.37	0.61			
					2						8.89	2.13			
M6 x 1	PF11MF	PF12MF	M6	0	1.83	1.52	8.2	8.18	14.61	7.37	0	13.46	20.32	#3	
				1						8.89	0.61				
				2						10.41	2.13				

## Performance Data<sup>(1)</sup>

Type	Thread Code	Installation (lbs.) / (kN)	Pushout (lbs.) / (N)
PF11MF	440 / M3	250 / 1.1	81 / 360
	632	300 / 1.3	175 / 778
	832 / M4	350 / 1.5	180 / 800
	032 / M5	350 / 1.5	180 / 800
	0420 / M6	450 / 2	200 / 890

(1) Performance values reported are averages when all installation specifications and procedures are followed. Variations in mounting hole size, sheet material and installation force will affect this data. Performance testing of this product in your application is recommended. We will be happy to provide samples for this purpose.

RoHS compliance information can be found on our website.  
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